

### REMARKS

This responds to the Office Action mailed on January 6, 2009. Claims 1, 9, 13, and 15 are amended. No claims are canceled or added. As a result, claims 1-20 remain pending in this application.

Applicant respectfully submits that the amendments to the claims are fully supported by the specification, as originally filed, and no new matter has been added. Applicant hereby respectfully requests further examination and reconsideration of the application in view of the following remarks.

#### § 103 Rejections of the Claims

1. Claims 1, 3, 4, 12, 13, 15, 16, 19, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Critser et al. (U.S. Patent No. 5,700,632) in view of Banes (U.S. Patent No. 6,586,235). In view of the foregoing amendments and following remarks, Applicant respectfully traverses this rejection.

Applicant notes that while claim 14 was not listed by the Office Action in the call of the rejection, the Office Action at page 5 refers to claim 14 in the body of the rejection. Accordingly, Applicant has assumed that the exclusion of claim 14 from the call of the rejection was a typographical error and has treated claim 14 as rejected. Please contact Applicant's attorney representative if this assumption is incorrect.

Applicant submits that the references, in combination with the reasoning set forth in the Office Action, does not describe each and every recitation of claims 1, 3, 4, 12, 13-15, 16, 19, and 20. For instance, Applicant cannot find in the references, in combination with the reasoning set forth in the Office Action "a heater disposed between the first transparent glass pane and the viewer, the heater including a hole therethrough to allow the viewer to observe the inside of the cell culture chamber; [and] a heating control system including an infrared temperature measuring device remote from the cell culture chamber, the infrared temperature measuring device configured to continuously measure a temperature within the cell culture chamber, the heating control system configured to receive continuous temperature measurements from the infrared temperature measuring device and, using the continuous temperature measurements, control the

heater to automatically maintain a substantially constant temperature within the cell culture chamber”, as recited in amended independent claim 1 or similarly recited in amended independent claim 15.

Applicant cannot find any description in the references, either alone or in combination, or any discussion in the Office Action regarding a heater or a heating control system, as recited in claims 1 and 15. It appears that Critser et al. is directed to a “mathematical model, and membranes and devices based upon that model, to optimize protocols for the addition or removal of cryoprotectant to or from biological cells”, (*See* Critser et al. at Abstract), and does not address heating or controlling of the heating of a cell culture chamber. Banes apparently is directed to a “cell culture device for inducing shear stress and on substrate strain on cells”, (*See* Banes at Abstract), and does not address heating or controlling of the heating of a cell culture chamber. Accordingly, because Critser et al. and Banes, either alone or in combination, are apparently devoid of description related to heating or controlling of the heating of a cell culture chamber, Applicant submits that the combination proposed by the Office Action does not describe each and every recitation of claims 1 or 15.

Dependent claims 3, 4, 12, 13, and 14 depend from independent claim 1; and dependent claims 16, 19, and 20 depend from independent claim 15. Accordingly, each of these claims incorporate the features of one of claims 1 and 15. At least for reasons analogous to those stated above with respect to claims 1 and 15, claims 3, 4, 12, 13, 14, 16, 19, and 20 are accordingly believed to be patentable. For brevity, Applicant defers (but reserves the right to present) further remarks, such as concerning any dependent claims, which are believed separately patentable.

For at least these reasons, Applicant submits that claims 1, 3, 4, 12, 13-15, 16, 19, and 20 are allowable over the references, in combination with the reasoning set forth in the Office Action, and respectfully requests reconsideration and withdrawal of this rejection.

**2-4.** Claims 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Critser et al. in view of Banes and further in view of Focht (U.S. Patent No. 4,974,952). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Critser et al. in view of Banes and further in view of Shanks (U.S. Patent No. 4,810,658). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Critser et al. in view of Banes and further in view of

Machemer et al. (J. Comp. Physiol A (1991) 168: 1-12). Applicant respectfully submits that obviousness does not presently exist because the references, in combination with the reasoning of the Office Action, do not appear to fully encompass the subject matter of claims 5, 11, 17, and 18.

Dependent claims 5 and 11 depend from and incorporate the features of independent claim 1; and dependent claims 17 and 18 depend from and incorporate the features of independent claim 15. Therefore, Applicant submits that dependent claims 5, 11, 17, and 18 are patentable over the references, alone or in combination, based upon at least their dependence from one of claims 1 and 15, which are believed to be in condition for allowance for at least the reasons stated above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 5, 11, 17, and 18.

5. Claims 1 and 6-8 were rejected 35 U.S.C. § 103(a) as being unpatentable over Minuth (U.S. Patent No. 5,665,599) in view of Banes and further in view of Focht. In view of the foregoing amendments and following remarks, Applicant respectfully traverses this rejection.

Applicant submits that the references, in combination with the reasoning set forth in the Office Action, does not describe each and every recitation of claims 1 and 6-8. For instance, Applicant cannot find in the references, in combination with the reasoning set forth in the Office Action “a heater disposed between the first transparent glass pane and the viewer, the heater including a hole therethrough to allow the viewer to observe the inside of the cell culture chamber; [and] a heating control system including an infrared temperature measuring device remote from the cell culture chamber, the infrared temperature measuring device configured to continuously measure a temperature within the cell culture chamber, the heating control system configured to receive continuous temperature measurements from the infrared temperature measuring device and, using the continuous temperature measurements, control the heater to automatically maintain a substantially constant temperature within the cell culture chamber”, as recited in amended independent claim 1.

Although Minuth states that “[i]t is possible to heat the chamber or the interior formed by sections 12' and 12a' by holding plates 19 and/or by closing bracket 8”, (Minuth at col. 3, lines

57-59), there is no further description in Minuth regarding such a heater and no description related to the heating control system including an infrared temperature measuring device remote from the cell culture chamber, as is recited in claim 1. As such, Applicant submits that Minuth does not include “a heater disposed between the first transparent glass pane and the viewer, the heater including a hole therethrough to allow the viewer to observe the inside of the cell culture chamber”, as is recited in amended claim 1, and that Banes and Focht do nothing to overcome this deficiency. Additionally, none of the references, alone or in combination, appear to describe “a heating control system including an infrared temperature measuring device remote from the cell culture chamber, the infrared temperature measuring device configured to continuously measure a temperature within the cell culture chamber, the heating control system configured to receive continuous temperature measurements from the infrared temperature measuring device and, using the continuous temperature measurements, control the heater to automatically maintain a substantially constant temperature within the cell culture chamber”, as recited in claim 1. For at least these reasons, Applicant submits that the references, in combination with the reasoning set forth in the Office Action, do not describe each and every recitation of claim 1.

Dependent claims 6-8 depend from independent claim 1. Accordingly, each of these claims incorporate the features of claim 1. At least for reasons analogous to those stated above with respect to claim 1, claims 6-8 are accordingly believed to be patentable. For brevity, Applicant defers (but reserves the right to present) further remarks, such as concerning any dependent claims, which are believed separately patentable.

For at least these reasons, Applicant submits that claims 1 and 6-8 are allowable over the references, in combination with the reasoning set forth in the Office Action, and respectfully requests reconsideration and withdrawal of this rejection.

6. Claims 9 and 10 were rejected 35 U.S.C. § 103(a) as being unpatentable over Minuth in view of Banes and further in view of Focht and Loeffler et al. (U.S. Patent No. 6,673,620). Applicant respectfully submits that obviousness does not presently exist because the references, in combination with the reasoning of the Office Action, do not appear to fully encompass the subject matter of claims 9 and 10.

Dependent claims 9 and 10 depend from and incorporate the features of independent claim 1. Therefore, Applicant submits that dependent claims 9 and 10 are patentable over the references, alone or in combination, based upon at least their dependence from claim 1, which is believed to be in condition for allowance for at least the reasons stated above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 9 and 10.

7. Claims 1 and 2 were rejected 35 U.S.C. § 103(a) as being unpatentable over Pierson et al.. (U.S. Patent No. 6,498,862) in view of Focht. In view of the foregoing amendments and following remarks, Applicant respectfully traverses this rejection.

Applicant submits that the references, in combination with the reasoning set forth in the Office Action, does not describe each and every recitation of claims 1 and 2. For instance, Applicant cannot find in the references, in combination with the reasoning set forth in the Office Action “a heater disposed between the first transparent glass pane and the viewer, the heater including a hole therethrough to allow the viewer to observe the inside of the cell culture chamber; [and] a heating control system including an infrared temperature measuring device remote from the cell culture chamber, the infrared temperature measuring device configured to continuously measure a temperature within the cell culture chamber, the heating control system configured to receive continuous temperature measurements from the infrared temperature measuring device and, using the continuous temperature measurements, control the heater to automatically maintain a substantially constant temperature within the cell culture chamber”, as recited in amended independent claim 1.

Applicant cannot find any description in the references, either alone or in combination, or any discussion in the Office Action regarding a heater or a heating control system, as recited in amended claim 1. It appears that Pierson et al. is directed to a “[b]iofilm formation [and] [t]he effects of biocides on biofilms commonly isolated from recyclable water systems”, (See Pierson et al. at Abstract), and does not address heating or controlling of the heating of a cell culture chamber. Applicant cannot find any description in Focht related to a heater or controlling of the heating of a cell culture chamber. Accordingly, because Pierson et al. and Focht, either alone or in combination, are apparently devoid of description related to heating or controlling of the

heating of a cell culture chamber, Applicant submits that the combination proposed by the Office Action does not describe each and every recitation of claim 1. For at least these reasons, Applicant submits that the references, in combination with the reasoning set forth in the Office Action, does not describe each and every recitation of claim 1.

Dependent claim 2 depends from and incorporates the features of independent claim 1. At least for reasons analogous to those stated above with respect to claim 1, claim 2 is accordingly believed to be patentable. For brevity, Applicant defers (but reserves the right to present) further remarks, such as concerning any dependent claims, which are believed separately patentable.

For at least these reasons, Applicant submits that claims 1 and 2 are allowable over the references, in combination with the reasoning set forth in the Office Action, and respectfully requests reconsideration and withdrawal of this rejection.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 359-3275 to facilitate prosecution of this application.

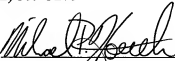
If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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By

  
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6<sup>th</sup> day of April, 2009.

DAWN M. POOLE

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Signature